April 2, 2026

Testimony of:
the Center for Progressive Reform,
Sierra Club Maryland
CCAN Action Fund

Before the Maryland House of Delegates Environment and Transportation Committee Requesting an Unfavorable Report on SB0270: Public Service Commission – Full Costs and Benefits Analysis of Sources of Electricity Generation

Dear Chairman Korman, Vice-Chair Guyton, and the members of the Environment and Transportation Committee,

Thank you for the opportunity to provide testimony on SB0270. SB0270 directs the Maryland Public Service Commission (PSC) to conduct a study on certain generation costs of electricity in Maryland and formulate recommendations "for policy changes to support the lowest costs and greatest benefits to the ratepayers of the state."[1] While our organizations support data driven analysis that provides policy recommendations to support least-cost generation for Marylanders, SB0270 will not achieve this purpose, and as such we respectfully request this committee to return an **unfavorable** reading of this bill. In short, the cost concept required by SB0270 is a cherry-picked metric that diverges from longstanding industry and policy-making practice and should not be used in isolation to drive policy formulation in our state. Used in isolation, the metric will provide misleading results and is a poor use of PSC (and ultimately ratepayer) funds.

Traditional Cost-analysis Models

There are numerous methodologies for evaluating the cost of a generation asset that are available for industry and policy makers to utilize. For example: levelized cost of electricity (LCOE) is a model used for the last three decades by both industry and policy makers[2] to determine the lifetime costs of generation produced by a given facility. Similarly, levelized avoided cost of electricity (LACE) is a well vetted tool to evaluate generation's cost and benefit to the grid, and

[1] SB 0270, 2026 Regular Session (MD, 2026)
[2] For instance, LCOE is heavily used by both the national laboratory of the Rockies (historically named the National Renewable Energy Laboratory or NREL) and the energy information administration (EIA)

is often used in conjunction with LCOE to evaluate whether it is economically beneficial to build a generation project. While, as with all models, there are grounds for tweaks or improvements,[3] these models have been vetted and are useful in evaluating costs because they concern themselves with what the actual conditions of the grid and generation mix a facility will be operating in.

Levelized full system cost of electricity

Levelized full system cost of electricity (LFSCOE), which this bill directs the PSC to use as *the only* modelling tool to evaluate current gas-fired, nuclear generation and solar generation costs, as well as future offshore wind generation costs[4], *sounds* similar to existing, vetted, modeling tools – however, it diverges substantially in both history and practice.

In history, LFSCOE, unlike commonly accepted models such as LCOE or LACE, was developed only in 2022 in a PhD dissertation, and lacks the vetting and validation of traditional modeling. It is accordingly not a sound basis for the PSC to rely upon for decision making, especially absent conducting related analysis also using industry-accepted models such LCOE or LACE.

In practice, the model inputs for LFSCOE are broadly similar to LCOE – with one critical difference - LFSCOE makes an assumption that the generation type being analyzed is the *only* type of generation present on the grid, and as such adds to the project's lifetime cost the amount of storage required ensure firm delivery for that generation type. This has two major implications as to the model. The first is that it sharply increases the modeled cost for any generation system that is intermittent, or otherwise has a low capacity factor.[5] The second is that outputs of the LFSCOE model are purely hypothetical.

Modeling Costs

This bill has been amended since its first introduction to include a more specific definition of what the PSC must consider in this study. This includes items such as capital costs, maintenance and operations (which in theory should include fuel costs), and capacity factors. Notably, all of these are included in traditional LCOE assessment.[6] The bill also adds a few criteria typically outside of LCOE – such as distribution (though not transmission, or critically *avoided transmission*, the later of which is a major strength of solar+storage projects in reducing costs), as well as "ramping up and down times" – which tend to favor storage projects and peaker gas

[3] for example, standard LCOE does not include in its calculations the impact of greenhouse gas (GHG) emissions or public health impacts from pollution in its costs, which is something policy makers in Maryland should consider under the Climate Solutions Now Act of 2022's provisions related to GHG reduction and overburdened and underserved communities.
[4] The 8.5 GW of offshore wind directed by the POWER Act
[5] The amount of generation produced by a generator compared to its full generation potential over a period of time
[6] There are a variety of LCOE assessments, including LCOE+ which is more expansive and models for issues such as intermittency, however they all conduct modeling to achieve a "real world" assessment as opposed to LFSCOE's laboratory hypothetical setting.

facilities. The measure also omits system cost savings such as externalities (e.g., pollution) from the equation.

Critically, LFSCOE, as amended, retains the primary facet of LFSCOE that differentiates it from LCOE or LCOE+, which is an assumption of 100% generation coming from a single fuel source paired with battery storage to ensure firm delivery. As such, while LFSCOE and LCOE use a roughly similar base calculation, the addition of storage in the cost line substantially increases the total lifetime project cost of a generation asset. Notably, this is true for any type of generation. For instance, a nuclear facility, with a capacity factor of roughly 92 to 95 percent, assessed under LFSCOE would have to count for storage to be constructed to meet the 5 to 8% of the time the facility could not deliver its full nameplate generation. However, the amount of storage required for intermittent generation, with comparably lower capacity favors, is substantially higher, and results in a price tag for generation that is substantially higher than dispatchable generation.

Importantly, in the initial LFSCOE paper, the author realized that a 100% single source of generation is not representative of reality[7] and conducted a "LFSCOE-95" study, in which a single source of generation represents only 95% of the grid (with necessary paired storage) – the remainder represented by a baseline generation source. As he notes in his study, this barely moves the needle on cost for dispatchable generation but reduces the cost (under LFSCOE) by approximately 50%.[8] In effect, LFSCOE metric rapidly "right sizes" when injected into a real-life grid situation where a given resource represents only one of many generation types supplying the grid.

LFSCOE Operates on a Hypothetical Grid

Neither in Maryland, nor any transmission-connected grid in the United States, is there a market that relies on only one source of generation. Unlike traditional cost models, which concern themselves with evaluating the actual costs of generation on actual grids, LFSCOE evaluates generation under purely hypothetical market circumstances. For instance, Maryland's electrical energy mix is roughly 41% nuclear and 39% gas – certainly removed from the 100% generation source contemplated by LFSCOE, or even LFSCOE-95. Although LFSCOE may be interesting as a thought experiment, directing the PSC to conduct a cost study that is modeled upon a hypothetical single generation-type plus storage state grid, is, at best, a waste of time and money given the diverse generation mix in the state. At worst, it opens the door to support for misguided policy changes based on modeling assumptions that are divorced from reality that undercut the economic value of renewables.

Fiscal Note

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[7] The author also substantially overestimates the cost of storage based on less mature BESS technology and markets, making the 2022 paper difficult to extrapolate an apples to apples cost of what the costs for generation under LFSCOE would be in 2026 or beyond.

[8] Idel, R. (2022). Levelized full system costs of electricity. *Energy*, *259*, 124905. https://doi.org/10.1016/j.energy.2022.124905

This bill comes with a fiscal note that reflects the costs to the PSC to conduct this study over a two year period, requiring $250,000 in fiscal year 2027 and again in fiscal year 2028.[9] This funding is to be drawn from special fund revenues collected from assessments on public service companies in Maryland. The costs of meeting such assessments are passed by the utilities through to ratepayers. As such, while this bill does not draw on the state's general fund, it imposes a financial burden directly on Maryland ratepayers.

Throughout this legislative session ensuring energy affordability has been a high priority for the Maryland General Assembly. SB0270 directs the PSC to conduct an analysis using an un-vetted model that does not evaluate the costs and benefits of generation to the *actual* Maryland grid, and as such will not spur actual affordability investments that will benefit Marylanders.

Maryland should not be asking ratepayers to pay yet more on their bills to pay for a study on a hypothetical, but rather should be focusing state and ratepayer dollars to bringing *proven* least cost generation to the grid to ensure affordability for Marylanders.

For these reasons our organizations respectfully request an **Unfavorable** reading by this committee.

Sincerely,
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[9] Fiscal and Policy Note, Third Reader Revised. SB 0270, 2026 Regular Session (MD 2026)